

REMARKS/ARGUMENTS

Claims 1-30 were previously pending in the application. Claims 25-30 are canceled; claims 1-4, 7, and 13-14 are amended. Assuming the entry of this amendment, claims 1-24 are now pending in the application. The Applicant hereby requests further examination and reconsideration of the application in view of the foregoing amendments and these remarks.

On page 2 of the office action, the Examiner rejected claims 1-8, 11-20, 23-26, and 28 under 35 U.S.C. 102(e) as being anticipated by Mangold. On page 11, the Examiner rejected claims 9-10, 21-22, 27, and 30 under 35 U.S.C. 103(a) as being unpatentable over Mangold in view of Liang. For the following reasons, the Applicant submits that all of the now-pending claims are allowable over the cited references.

Claims 1 and 13

Support for the amendments to claims 1 and 13 are found, for example, in original claims 2, 14, 25, and 28. Claims 1 and 13 have been amended to clarify differences between the claimed invention and the teachings of the cited references.

According to currently amended claim 1, one or more first-standard messages conforming to a first communication standard associated with a first of the communication systems are transmitted in a first-standard beacon period for the first communication standard, where the one or more first-standard messages are designed to notify one or more nodes conforming to the first communication standard of (1) the existence of a contention free period (CFP) for the first communication system and (2) the existence of a contention access period (CAP) for the first communication system.

In addition, one or more second-standard messages conforming to a second communication standard different from the first communication standard, associated with a second of the communication systems are transmitted in a second-standard beacon period for the second communication standard, where the one or more second-standard messages are designed to notify one or more nodes conforming to the second communication standard of (1) the existence of a CFP for the second communication system and (2) the existence of a CAP for the second communication system.

Furthermore, the timing of the CFPs and CAPs for the first and second communication systems is coordinated such that a CFP for the first communication system spans (1) a CFP for the second communication system and (2) a second-standard beacon period. In addition, a CAP for the second communication system spans (1) a CAP for the first communication system and (2) a first-standard beacon period.

Figs. 1, 2, and 4 show an exemplary embodiment of the invention of claim 1, in which:

- o IEEE 802.11 is an example of the first communications standard of claim 1;
- o IEEE 802.15.3 is an example of the second communications standard of claim 1;
- o IEEE 802.11 beacon 404 of Fig. 4 is an example of the first-standard beacon period of claim 1;
- o The IEEE 802.11 CAP of Fig. 4 is an example of the CAP for the first communication system of claim 1;

- o Although not explicitly labeled in Fig. 4, the IEEE 802.11 CFP from 802.11 beacon 404 of Fig. 4 until the next instance of 802.11 CF end frame 402 is an example of a CFP for the first communication system of claim 1;
- o IEEE 802.15.3 beacon 204 of Figs. 2 and 4 is an example of the second-standard beacon period of claim 1;
- o IEEE 802.15.3 CAP 206 of Figs. 2 and 4 is an example of the CAP for the second communication system of claim 1; and
- o IEEE 802.15.3 CFP 208 of Figs. 2 and 4 is an example of the CFP for the second communication system of claim 1.

As indicated by Fig. 4, an IEEE 802.11 CFP spans an IEEE 802.15.3 CFP 208 and the next IEEE 802.15.3 beacon period 204. In addition, IEEE 802.15.3 CAP 206 spans an IEEE 802.11 CAP and IEEE 802.11 beacon 404.

In rejecting original claim 1, the Examiner cited Mangold as disclosing a CFP for a first communication system spanning a CFP for a second communication system, where the first communication system conforms to Mangold's 802.11 standard, and the second communication system conforms to Mangold's H2 standard. In order for Mangold to disclose an example of the invention of currently amended claim 1, Mangold would have to disclose:

- o An 802.11 CFP spanning an H2 CFP and an H2 beacon period; and
- o An H2 CAP spanning an 802.11 CFP and an 802.11 beacon period.

The Applicant submits that Mangold provides no such teaching.

Mangold's Fig. 3 shows the CCHC superframe consisting of a contention-free period (CFP) and a contention-period (CP). See, e.g., paragraph [0038]. Fig. 3 shows a beacon at the beginning of the CFP. Assuming, for the sake of argument, that this beacon is an example of the H2 beacon period that is spanned by the 802.11 CFP, the fact remains that Mangold does not teach an 802.11 beacon period that is spanned by an H2 CAP. As such, Mangold cannot be said to disclose an example of the invention of currently amended claim 1.

Nor does Liang provide the features of currently amended claim 1 that are missing from Mangold.

For all these reasons, the Applicant submits that claim 1 is allowable over the cited references. For similar reasons, the Applicant submits that claim 13 is allowable over the cited references. Since claims 2-12 depend directly or indirectly from claim 1 and claims 14-24 depend directly or indirectly from claim 13, it is further submitted that those claims are also allowable over the cited references.

Claims 5 and 17

According to claims 5 and 17, the first message conforming to the first communication standard is transmitted at the end of a CAP for the second communication system. In order for Mangold to disclose this feature, Mangold would have to teach an 802.11 beacon at the end of an H2 CAP. Since

Mangold provides no such teaching, the Applicant submits that this provides additional reasons for the allowability of claims 5 and 17 over the cited references.

For the reasons set forth above, the Applicant respectfully submits that the rejections of claims 1-24 under Sections 102(e) and 103(a) have been overcome.

In view of the above amendments and remarks, the Applicant believes that the now-pending claims are in condition for allowance. Therefore, the Applicant believes that the entire application is now in condition for allowance, and early and favorable action is respectfully solicited.

Respectfully submitted,



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